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A BRIEF SKETCH OF THE HISTORY OF TUDOR ARCHITECTURE.

THE GRANGE.

Towris hie, ful plesant shal ye finde,
With fannis fresh, turning with every winde,
The chambris and parlers of a sorte,
With bay-wyndows, goodlie as may be thoughte.

When the laws were insufficient to protect the weak from the oppression of the strong, men became associated as vassals or dependents under some powerful baron or chieftain, and were willing to exchange their liberty for the protection thus afforded. Such was the state of society in the times of the feudal system, which, when its fierce and jealous spirit prevailed in full force, rendered castles necessary to repel warlike attacks or predatory violence. The Normans brought with them the feudal system, in its greatest extent, and knew that it was necessary to attach a castle to every lordship, so that during the first Norman reigns the life of a chieftain appears to have been passed in building castles and defending them; except when actively employed in destroying those of others.

In the reign of Edward the Confessor, one castle only, that of Arundel, existed in England. In the next reign the *Domesday Book* enumerates forty-nine castles, eight of which were built by William the Conqueror; ten by the greater barons, and one by a tenant of Earl Roger Montgomeri; there are eleven, of which the builders are not particularized.

The prototype of most of our English castles of primeval construction may be found in Normandy in such parts of them as remain perfect, or nearly so. The leading characteristic of a Norman fortress is a lofty mound of earth thrown up in the centre of the other works, and caused by the forming of a very deep ditch, moat, or fosse, from the upper ballium or summit of which rose either a square tower of several stories and great height, or a circular one much lower and of equal diameter, approached by steep unguarded steps on the outside. Other component parts were the gateway and the barbican or watch-tower, both of which communicated with the keep by sally-ports. But by far the most important part was the great gateway of entrance, and combined with it were the chief materials both of architectural beauty and warlike defence. It generally occupied the central part of the screen wall, which had that aspect from which the castle could be most conveniently approached.

Such was the military architecture during many years after the Conquest. Castles were the abodes of warriors, and whatever hospitality or courtesy was practised within their walls, they frowned defiance upon all without them, whether uncivilised or hostile.

But when chivalry had thrown her rays of refinement over domestic life, castles became the schools of the hardier virtues; and manners which were once distorted by emulation and love of power, acquired from her institutions a mild dignity, which has long since been lost in a higher degree of polish, in the gradual progress of refinement.

Architecture likewise progressed from rude strength to interior accommodation of plan; and even ornamental construction became universal during the fourteenth and

the century succeeding it, when spacious halls, bowers, or parlours for the ladies, alures or broad pavement upon the walls, small herbaries, or inclosed gardens, oratories with an oriel window, or larger chapels, and numerous small apartments for the reception of the lord and his numerous menials, were found in almost every castle of the higher and more opulent nobility.

The plans of mere defence thus yielding to those of more comfortable habitation, a certain degree of splendour in the partial decoration of the interior was a necessary consequence. The walls of the state-chambers were painted, and sometimes lined with wainscot of curious carved boisserie on the panels, which subsequently were more adorned and hung with tapestry.

The practice of painting was introduced into England at the beginning of the thirteenth century. It was frequently seen in the chief chambers of bishops and abbots as first applied to the emblazoning of arms, but subsequently to portraits in series and parts of scriptural history and romances. They were painted in fresco, or with colours mixed up with resinous gums.

In following the leisurely pace of improvement we arrive at the fifteenth century, and find that the era of the more ancient baronial keeps and castles had then passed away. This century exhibits vast mansions of the noble and opulent, in numerous instances of which the characteristic style of the preceding castles is not entirely abandoned, but superseded and mixed up with a new and peculiar manner. Many of the more remarkable of these houses no longer remain.

When the Tudor dynasty was completely established, Henry the Seventh, upon the site of a former palace at Shene, in Surrey, which was destroyed by fire, erected another palace, which when finished he denominated RICHMOND, in allusion to his former title. Of this palace not a vestige now remains, except in written or printed description, from which we gather that it had many tall turrets, terminated by pinnacles and gilded vanes. The large dimensions of the state-apartments were given in the Survey, when the palace was offered for sale by the parliamentary commissioners in 1649. Their chief peculiarities consisted in numerous bay-windows of capricious formation, with rectangular or semicircular projections, producing a picturesque effect; and octangular small towers, inclosing noel-staircases, which were finished with mitred cupolas, fringed with rich crockets. These were not regular hemispheres, but had a globular or bulbous shape, with a general resemblance to the royal crown as used in that day.

The Tudor style thus introduced and confined to domestic architecture, deviated, according to the Rev. Mr. Dallaway, into three distinct manners:—

1. The manner already mentioned, under Henry the Seventh.
2. The variations under Henry the Eighth.
3. The Elizabethan style.

The zenith of gorgeous expense in the reign of Henry the Eighth supplies many instances of a grand style of building. No less than ten royal mansions, each large enough to have contained his multitudinous retinue, rose at the command of this monarch, while the courtiers and opulent gentry of the time vied with each other in the vast expenditure which they employed in erecting most spacious houses in the several provinces which they inhabited.

A ground-plan formed around a quadrangular area and approached by a very lofty gateway-tower, embattled and flanked by more lofty angular turrets, appears to have been the first innovation in considerable buildings. When of brick, the doorcases and the dressings of windows were of fine stone. The gateway was centrally placed: it was frequently embellished with vitrified bricks in square and circular cavities, in which were busts in *terra cotta*. In the walls were also inserted various members of fantastic architecture, exhibiting supporters, cognizances, and escutcheons of arms moulded in baked clay with accuracy and skill. But still more elaborately wrought were the tall clustered chimneys, with an intricacy and variety of pattern beyond the powers of verbal description.

One peculiarity in these spacious mansions which prevailed during the reigns of the Tudors, consisted in placing beside the great staircase communicating with the hall, several small octangular or hexagonal towers, which contained others. These generally occurred at the angles of the great court, and exceeding the roof in height, gave a very picturesque effect to the whole pile of building.

Where stone did not abound an almost perfect substitute was found in brick. It was not an uncommon practice to place vitrified bricks of different colours in alternate squares and lozenges, as well as in other forms.

In the interior, the spacious hall was remarkable for its high pitched roof composed of timber-frame, jointed with admirable contrivance, and supported by brackets and rafters, upon which the art of carving was practised with much originality of design. The boldness of projection and the beauty of the unpainted oak or chesnut upon a grand scale never attained to greater excellence. At the upper extreme end of the hall, where was the elevation anciently called "Deys," stood the high table for the superior guests, and at the side was the large semi-hexagonal bay-window, branching from the floor to the ceiling, in which partially inserted were armorial bearings, cognizances, and rebus on the name, in stained glass. The upper compartment of the hall was paved with fictile tiles, like delft-ware, in chequer-work, most frequently of two colours only, describing scrolls, mottoes, and arms.

The windows were oblong, or else nearly square, and very widely divided by a transom, which was sometimes crenellated, or worked into small battlements, and finished externally with labels. These were commonly of green opaque glass, "rich windows which excluded light," a circumstance of little consequence, as they opened to the quadrangle; and if otherwise, a distant prospect had but few charms for our ancestors.

In the middle of the hall was a raised hearth, upon which the fire was laid, with cleft wood, upon andyrons, and the smoke was conveyed through the louvre or cupola arising from the roof. This custom was continued in college halls unto a late period.

In a baronial mansion, upon the largest improved scale, there were more spacious apartments than in earlier times, and those which admitted a greater degree of ornament, and of which the arras hangings were most considered. Such were the withdrawing-room for my lord's guests when they quitted the hall; the presence-chamber "hangyd with cloth of arras;" parlours, both for winter and summer; "the lady's bowre," or apartments for females, and the long gallery; nor must the kitchen, with its gigantic apparatus, be overlooked.

Terminating gables between turrets were characteristic of this style, and had lacings on the ridges, with an ornament which the masons called "hip-knobs." The stone for the dressings of doors and windows in brick buildings was brought from Caen, and cornices were placed beneath the eaves.

To the dwelling of the country gentleman three or four centuries ago, the term GRANGE was sometimes applied, a term perhaps more generally applicable to the farm-house, or the manor-farm, including in the latter case the house, land, &c.

Before our great forests were exhausted, timber was more plentiful than stone, and entered largely into the construction of this class of houses. To produce an equable effect the entire surface of the walling and frame-work was cased with durable plaster called "rough-cast," made of lime, hair, and coarse sand, abounding with small stones; this composition was sometimes studded with fragments of glass

"Rough-cast," was the common covering of walls in Shakspere's time, as appears by Bottom's device for representing a wall in the great chamber to enact the play of Pyramus and Thisbe.

"Some man or other must present wall; and let him have some plaster, or some lome, or some *rough-cast*, about him, to signify wall."

Barge-boards, pendants, pinnacles, and brackets, being the chief decorations of houses in this style, were always of strong oak, and left to acquire by age a grey hue. One great use of barge-boards was to conceal the under side of the laths and tiles projecting beyond the face of the wall.

One great characteristic of houses of this class was the stories projecting one before another. Mr. Hunt, in his *Exemplars of Tudor Architecture*, says, that this was not the effect of caprice, or of force of habit from building in narrow ways where there was a necessity for confining houses within the limits of fortifications: the object was to protect the sills and walls from wet by setting the upper story so forward as to shelter the lower, and the roof again sufficiently out to shield the upper. Judging from the state of preservation which many of these old houses still maintain, this object seems to have been well attained. Another reason for these projecting stories seems to be in the extended size gained for the upper rooms.

Say, why was man so eminently raised
Amid the vast creation; why empower'd
Through life and death to dart his watchful eye,
With thoughts beyond the limit of his frame;
But that the Omnipotent might send him forth,
In sight of angels and immortal minds,
As on an ample theatre, to join
In contest with his equals, who shall best
The task achieve, the course of noble toils;
By wisdom and by mercy preordained!
Might send him forth the sov'reign good to learn;
To chase each meaner purpose from his breast;
And through the mists of passion and of sense,
And through the pelting storms of chance and pain,
To hold straight on with constant heart and eye
Still fix'd upon his everlasting palm,
The approving smile of Heaven!——Akenside.

Truth may be aspersed and traduced, but it can never be destroyed.

Man has ever had recourse to society as an essential means of humanizing his heart and ameliorating the enjoyments of life.—Anon.

Truth can never be in opposition to truth; and the investigation of all subjects comprehensible and scrutable to the human faculties is the undoubted privilege of a rational understanding.—Dr. Prichard.

The thrifty disposition, the regularity and neatness, the ideas of order and management, inspired by the conscious ability and successful exertion in good housewifery, cannot be too highly prized, or diligently cultivated; for the result is *moral*. The orderly house but reflects the orderly mind; the humble wife and mother, whose active indefatigable hand, silently executing her careful ingenious thought, improves the comforts, the visible respectability, and real condition of her husband and children, is mistress of a secret for blending her best and tenderest affections with the employment of every day: she contrives judiciously what she constantly and earnestly meditates, and finds no weariness in the labour to which strength continually flows from a deep fountain in her heart.—*Workwoman's Guide.*

He that has the fewest wants, and has it in his power to satisfy them, is not merely the happiest, but the richest man. Though he is not a peer of the realm, he is a lord of the creation; and can fill his station with the unconscious dignity of Christian virtue.—Anon.

SABBATH DAYS.

Sweet day! so cool, so calm, so bright,
The bridal of the earth and sky.

I thank thee, God, for Sabbath days,
Those blessed days, so calm and bright,
When gushing gratitude and praise
Fill all my spirit with delight.

A sweet, composed, and heavenly calm,
Pervades all earthly sounds and things;
The thrush's song, the zephyr's balm,
Seem tender, holy worshippings.

I hie me to a holy place,
With belfry small, among the trees;
Where simple hearts, refined by grace,
Feed chaste and hallowed sympathies.

How soft in that lone lowly spot,
In grateful songs sweet voices blend;
How solemn, deep, the whispered tones
Of reverential prayers ascend.

Earth seems forgot; by hope and love,
And lofty faith's sublime revealing,
The soul is winged, and soars above
All earthly cares, each grosser feeling.

And full of peace the Sabbath eve;
Of placid joy, of holy love;
God's own pure spirit seems to breathe
O'er earth below, through air above.

Unseen, yet felt in thoughts sublime,
That stir the soul's deep, silent stream;
Far-stretching past the bounds of time,
Where vast, unuttered glories beam.

And felt through all the awakened heart,—
An influence, soft, renewing pure—
Made glad for that blest, better part,
That precious gift which will endure.

Toiling through life's perplexed maze,
Man were devoid of noblest worth,
But for these constant sweet relays,
These blessed hours of heaven on earth.

I thank thee, then, oh! God of love,
For Sabbath days, so calm and bright,
Thy goodness still my spirit move
To ardent praise, and pure delight.—J. W.

If we wish that the virtue of our daughters should be of a more sterling stamp, not forged in the mint of vanity, but issuing from principle, we shall be persuaded of the necessity of guarding against those early associations by which the love of admiration is produced.—Elizabeth Hamilton.

Philosophers in the ship of science sometimes forget that the disciple cannot embark without a boat.

A king can make a man honourable, and right honourable, but he cannot make him a man of honour.—Jortin.

In order to render yourselves amiable in society, correct every appearance of harshness in behaviour. Let that courtesy distinguish your demeanour, which springs, not so much from studied politeness, as from a mild and gentle heart. Follow the customs of the world in matters indifferent; but stop when they become sinful. Let your manners be simple and natural; and they will be engaging. Affectation is certain deformity. By forming themselves on fantastic models, and vying with one another in every reigning folly, the young begin with being ridiculous, and end in being vicious and immoral.—Blair.

Solitude powerfully assists general impressions of religion. When a man finds himself alone in communication with his Creator, his imagination becomes filled with a conflux of awful ideas concerning the universal agency, and invisible presence, of that Being; concerning what is likely to become of himself, and of the superlative importance of providing for the happiness of his future existence, by endeavours to please *Him* who is the arbiter of his destiny; which, whenever they gain admittance, for a season overwhelm all others; and leave, when they depart, a solemnity upon the thoughts that will seldom fail, in some degree, to affect the conduct of life.—Paley.

PLANT-LIKE ANIMALS.

II.

WE have shown on a former occasion how closely some of the lowest forms of animal life resemble vegetables and flowers. Further instances of the fact will be given in the course of the present article, in which we first notice the little polypus, figured beneath, and belonging to a family in which the polypi are contained in cells of various forms, all attached to a gelatinous stem, which runs through the whole, after the manner of the pith in a tree. In the present instance, these cells, when highly magnified, look like the swelling buds of a plant, while, in the natural size, the whole collected mass of polypi, appears like a delicate and beautiful little branching weed. Minute indeed are the animals inhabiting these tiny cells, and when they protrude themselves from the cells, it does not make a very marked difference in the appearance of the whole.

Fig. 1.

Sertularia polyzonias, (magnified, and natural size.)

Nearly allied to this family is another called *Campanularia*, because all the ends of the branches through which the polypi pass are expanded into the form of bells. Some of the species have climbing stems, as in fig. 2.

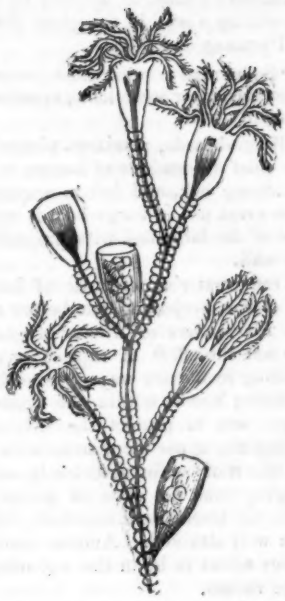
Fig. 2.

Campanularia volubilis, (highly magnified.)

It will be observed that the animal in this case produces a stem and cells that come very close to the vegetable type. All polypi form for themselves some base or shelly substance, though of different materials. Sometimes the stems or tubes are formed of a horny, flexible, elastic material corresponding with animal membrane, at other times, they are hard and calcareous, consisting chiefly of carbonate of lime, with a small quantity of the phosphate. The particles of calcareous matter are always united by some portion of animal substance. Whether the shelly substance now spoken of, takes the form of a leafless tree, or of a climbing plant, whether it is arranged in tubes with the regularity of organ-pipes, or terminates in bell-shaped cells, from which the little animals extend their feelers, or tentacula, like so many fringed and elegant stamens, whatever may be its variety of shape, the material is subject to variation in very nearly the same degree. It may vary in its degrees of elasticity, so as to yield more or less readily to the motion of the waves, and it may be combined in an endless variety of ways, according to the necessities of the animal. What a beautiful form is that observed in the polypus represented in fig. 3, and how wonderful the fact that the minute and disregarded architects (disregarded by man, but recognised by the eye of Omnipotence,) should each, while pursuing the few and simple ends of its creation, take part in working out so fair a form as this, and so analogous to the forms of the vegetable world! Yet we have more beautiful specimens than this, which we shall present to the reader in due time.

But before we proceed to other species, we must notice the method in which these singular animals receive food, and what that food is. The simplest possible form of the nutritive organs is displayed in the polypi. The hydra (figured in our last) consists of a mere stomach, provided with instruments for catching food. The opening to this stomach may be called a mouth. There is no trace of brains, nerves, lungs, heart, or even vessels of any kind. The stomach is so constructed as to prepare the fluids by which the food is digested and to convey the nutritive particles through its substance. We take the hydra as the type, because it is the simplest of the polypi, but a similar process goes on in the more complicated forms. The hydra is a voracious little creature, and though it does not pursue the minute animals on which it feeds, yet it eagerly conveys into its stomach all kinds of living prey that come within reach of its feelers. By means of the microscope, the changes which take place in the food when it is in the stomach, can be distinctly observed, for the walls of this cavity are thin and transparent. We are indebted to the careful and patient experiments of Trembley for much curious information on this subject. He says that the larvæ of insects, naides, and other aquatic worms, and even the smallest fishes, are laid hold of by the hydra, when they happen to touch any part of the long filaments which the animal has spread out like a net in different directions. The hydra contrives, like the boa constrictor, to expand its mouth so as to swallow animals much larger than its own body; thus it sometimes becomes dilated to an extraordinary size, and yet this same animal can live for upwards of four months without any visible supply of food. The changes observed in the food as acted upon by the stomach were, an undulatory motion of the contents backwards and forwards, apparently produced by contraction and dilatation, and a gradual melting down of the softer parts into a kind of jelly, while the harder portions were collected together and rejected by the mouth. This jelly was seen to contain globules of various sizes, some of which penetrated the sides of the stomach, and formed part of its structure, while a portion was sent to the feelers or tentacula, entering their tubular cavities by passages of communication with the stomach. These observations can be made best, when the food of the animal contains colouring matter, so as to give a tinge to the resulting fluid. It is a curious fact that the hydra, in its eagerness to transfer its victim into its stomach, sometimes swallows several of its own feelers with which the prey is encircled; but these feelers always come out of the stomach without the least injury, even if they have remained there twenty-four hours.

Fig. 3.



Campanularia gelatinosa, (very highly magnified.)

But the most extraordinary circumstance connected with the hydra is that already alluded to, *i.e.*, the power which it possesses of repairing injuries inflicted on its body. Nothing but the test of repeated experiments could have made it credible that this little animal can not only reproduce its tentacula, if cut off, but can repair the loss of any portion we may choose to remove. If the body be split half way down, the split parts will soon form two heads with separate mouths, and if it be divided into six or seven sections, a monster with six or seven

heads is the result. Trembley engrafted different portions of the body of one polypus on the body of another, by merely pressing their surfaces together; and found that a number of heads and bodies might be artificially joined, so as to form monsters of the most complicated forms.

But without reference to artificial combinations, there is much to excite inquiry in those that are natural, where polypi grow upon a common stem with numerous branches. In these cases, the mouth in which each branch terminates leads into a separate stomach; but the nutritive portion of the food, after undergoing the process described in the case of the hydra, is not all absorbed by the individual polypus, but passes into channels, which proceed in different directions from the cavity of each stomach, and are distributed over all the surrounding portions of the flesh. There, meeting with similar channels from the other stomachs, it proceeds to nourish generally the whole mass of polypi. There is here some difficulty in understanding how these polypi are to be considered distinct individuals, if there are communicating vessels between them. On this subject Dr. Roget has the following remarks:

The prevailing opinion among naturalists is, that each polypus is an individual animal, associated with the rest in a sort of republic, where the labours of all are exerted for the benefit of the whole society. But it is, perhaps, more consonant with our ideas of the nature of vitality, to consider the extent of the distribution of nutritive fluid in any organic system, as the criterion of the individuality of that system, a view which would lead us to consider the entire polypus, or mass composed of numerous polypes, as a single individual animal, for there is no more inconsistency in supposing that an individual animal may possess any number of mouths, than that it may be provided with a multitude of distinct stomachs, which is actually exemplified in many of the lower animals.

Fig. 4.

Tabularia indivisa.

Sometimes the first glance at one of these compound polypi, or (if we are to call them so) this individual polypus, would lead us to suppose that each branch of which it is composed (fig. 4) was distinct from the rest, but this is not the case. There is a communication at the base, so that what is received by one mouth goes to the profit of all the rest.

We have already noticed that the feelers or tentacula in these animals may vary considerably in their form. There may be one or several rows of these important organs, and they may be long or short, according to the need of the particular species. But we have not stated a provision by which these feelers are rendered particularly effective.

The stationary condition of the majority of polypi makes them wholly dependent on the expert use of the feelers for their supply of food, and we find that these feelers are therefore furnished with a multitude of the finest possible threads or hairs, called *cilia*, which by their incessant vibrations determine currents of water to flow to the mouth, carrying with them the animalcules on which the polypus subsists.

Fig. 5.

Tubilipora patina, (very highly magnified, and showing the animals.)

In fig. 5 this structure is apparent, the animal being represented so highly magnified as to render visible the delicate hairs which fringe the tentacula on either side. How much are we indebted to the discovery of the microscope in our inquiries respecting these wondrous, but minute animals! But for this instrument how much would be lost to us, which now excites mingled admiration and astonishment, and carries our minds continually to the One Great Source of beauty and perfection, who has thus arranged the structure of these mere atoms in creation.

BRAZILIAN SKETCHES.

II.

Travelling in Brazil.

When a Brazilian travels with his wife and family he furnishes an amusing spectacle to the foreigner. The *Senhor* takes the lead, generally on a mule, which is caparisoned in what we should term rather heavy style. His saddle is not unlike that of our hussars as to shape, but the seat is covered with light blue cotton velvet, embroidered with gold or silver thread; instead of the crupper he has a breeching, certainly more showy than useful, richly ornamented with plated spangles, (sometimes silver ones,) and little shells; his bridle is decorated in the same manner, but as to the bit, an English horse "warranted not to shy at a waggon-load of monkies" would certainly start at the sight of so brutal a piece of machinery. It often weighs four pounds, and is so severe that, with a smart jerk, it would break the jaw even of a mule. One something like it is to be seen in the mouth of the "girthless steed," at Charing Cross, but even that is a child's toy compared to those used by Brazilians. The curb is composed of strong links in the figure of an 8, and besides this appendage the rider has a *foucinehiero*, or piece of iron, formed into a semicircle, with sharp teeth like a saw on the *inner* side, which goes over the mule's nose to prevent him from throwing his head up. The bridle, bit, curb, and nose-piece together weigh rarely less than seven or eight pounds. On the pommel of the saddle are fastened a pair of wide-mouthed holster-pipes in which he carries his pistols, of most undeniable native manufacture, and loaded as full of coarse powder, iron and leaden pellets, and Indian corn leaves, as the barrels can hold. His stirrup-leathers are so long that the toe of his boot barely reaches his massive brass or silver stirrup; and at the back of the saddle is fixed a pad on which his cloak rests. The total trappings which the poor horse or mule has to bear, exclusive

of the rider's weight, is seldom under thirty-five or forty pounds.

The *Senhor* himself is generally above the middle height; complexions range from dirty yellow to a dark snuff-colour. The darker the individual, the more his hair reminds us of his progenitor, the negro; as the hue grows lighter we may trace the swarthy Portuguese in his lank greasy locks; but let the hair be what it may, it is sure to be covered by a very broad-brimmed, taper-crowned hat. His jacket is made of some gaudy red and yellow chintz, looking very like a patchwork bed-cover. His throat is always bare, and his shirt-collar and frill make ample amends for any deficiency of neckcloth. His nether garments are constructed of some home-made cotton stuff, dyed either yellow or light blue, and are kept up round his waist by a narrow sash of gay but ordinary silk, into which his never-failing companion, a long knife, is thrust. This is truly a dangerous and cowardly weapon; it is too frequently used for murderous purposes, and is therefore prohibited by law, but, unfortunately, the laws of Brazil are little regarded. Scarcely any others than the Spanish boots are worn, and for convenience and utility nothing can surpass them, for besides keeping the trowsers from being torn and dirtied, they serve the purpose of small portmanteaus.

Such is the *Senhor's* outward man; let us now look at his fair (?) ladye, who follows her lord and master on horseback. The trappings of her steed are similar to her husband's, even to the saddle, (for few Brazilian dames venture on the dangers of a side-saddle,) the only difference being in the colour of the seat, which is usually pink or light green. Her face is wrapped round with sundry shawls and handkerchiefs, leaving visible only a pair of fine eyes, and a mouthful of bad teeth. She wears a hat in the shape of our patent gossamers, but some are dark and some are light red, some are sky-blue, others of an indigo hue, some pea-green, some sea-green, and we doubt whether all the colours of the rainbow would satisfy the different grades of Brazilian taste. In one thing they all agree, every one has a gilt buckle, of about three inches by two, gaily ornamented with stained glass, stuck in front of the hat. The dress of the ladies is a species of habit, divided before and behind, and half-tucked round each leg. Their shape, far from graceful even in their best dresses, is not improved by the unseemly manner in which they sit on horseback.

Following the *Senhora* may be found the lady's maid, a negress arrayed much after the fashion of her mistress, but without either hat or ornaments on her horse's trappings. Then comes the baggage-train, consisting of three or four mules, bearing each two heavy boxes, covered with bullocks' hides to preserve them from sun and rain. The rear is brought up by the mule-driver and the *Senhor's pagem*, a negro or mulatto, dressed out in all the finery of Brazilian and African taste. His boots and hat are composed of the same material, namely, stiff black leather; the former not unlike those worn by French postillions, only a few degrees more clumsy: his jacket is ornamented with sundry rows of sugar-loaf buttons, and the wearer frequently displays his taste by sewing on odd bits of harness-buckles, brass rings, artificial flowers, and other equally useful appendages.

The usual rate of travelling is from ten to twelve miles daily; a few extend it to twenty; and for so doing, are complimented with the title of fool, *or Englishman*. The roads are too bad to admit of going at any other pace than a walk, and this is made doubly slow if the traveller has baggage animals with him, which go a snail's pace, otherwise the cargo would upset, or the mules' backs be wounded. Three miles an hour is the regular pace, but many Brazilians think even this too much for the welfare of their mules.

On arriving at the *rancho* (a place far inferior to an open shed or boat-house in England,) where the party is to stop for the night, the *Senhor* selects a corner of it where he flatters himself he shall be least exposed to the wind and rain: he slips off his jacket and boots for fear of wearing them out, unloads his mules, and piles the boxes and pack-saddles in two rows. The poor beasts are now turned adrift to pick up any little grass they may find by the road-side, and by this time his servant has brought in a bundle of wood from the neighbouring forest, and kindled a fire. Out of one of the boxes is taken an iron boiler and some *feijao*, (black beans,) which are immediately set to boil, the water being supplied by the nearest rivulet, and the *Senhor* takes his siesta on a bullock's hide laid between the boxes. After a short rest and a repast of *feijao* and *farinha*, (pounded Indian corn, resembling sawdust,) he has his mules collected, gives them each a feed of corn, and while they are eating it, examines their shoes to see what nails are missing or loose, and having supplied their places from a stock which he carries with him, he pastures the poor beasts for the night in some secluded place in the vicinity, and returns to the *rancho* to enjoy his *cigarro*. His *pagem* has not been lazy during the interim, having collected a good supply of wood, and made up a fire for the night.

But all this time how fared the *Senhorita?* We cannot say it for certain, but we believe she enjoyed her siesta as well as her lord, for she retired behind a screen formed of a bullock's hide at the further end of the inclosure of boxes, where she remained very quietly until dinner was announced. She partook heartily of the homely meal, and as the *Senhor* had appropriated the only fork which the party could boast, the lady quietly mixed her porridge with her fingers on the lid of the boiler, and with the same implements conveyed her food to her mouth. At night she retired to the spot where she had taken a nap during the day, and whither she was quickly followed by her ebony-coloured *femme-de-chambre*.

About eight o'clock the *Senhor* retires to his bed of hide, his servants stretching themselves on a similar one near the fire. Before sunrise the next morning the mules are again collected, the luggage is replaced on their backs, and away they creep on their weary journey.

Some of these expeditions occupy three or four months, every day being passed alike; not so every night, for a *rancho* is not always to be found, and the party are obliged to content themselves with an encampment in the open air, which is far from being agreeable, particularly if the night be rainy, and the fire will not burn. Such are the miseries of travelling in Brazil.

An extensive acquaintance with strange people and countries has satisfied me completely that the assumption of an artificial character generally defeats its own purpose; as hauteur, where it does not naturally exist, is apt to be fatal to consistency, and thus destroys, or rather prevents the establishment of confidence. Judging from experience alone, I would say, that in treating with the natives of countries little acquainted with our manners, nothing is so important as to observe the absence of every kind of disguise; because the smallest discovery of inconsistency on our part is sure to be considered by them as duplicity whether it be so or not, and this suspicion at once puts confidential intercourse out of the question.—Basil Hall.

The discoveries of science, the triumphs of genius, the revelation of truth, seem to partake of the permanent Being which is their source; they are perennial, living growths, which ever put forth anew their foliage, blossom, and golden fruit; and we collect from year to year the harvest which owes its birth to the divine seeds of wisdom, which the gifted individuals of our race have been permitted to plant, which have been watered by the dews of heaven, and have been fostered by the light and genial warmth of a sun that sheds on them the blessings of Providence.—Joseph Henry Green.

LETTERS TO THE READER.

No. VIII.

My dear Reader,

I wish to lay before you the principal facts contained in an official *Report*, lately published, *On the Physical and Moral Condition of the Women and Children employed in Agriculture in England.* Our sympathies with rural life would be more benevolent if they were less refined; we are ready enough to let our feelings become associated with the pleasing pictures that compose the harvests of the year, but "when autumn grows dark upon the mountains, when grey mists rest upon the hills, and the whirlwind is heard upon the heath; when dark rolls the river through the narrow plain, and the leaves whirl round with the wind, and strew the graves of the dead," then do our sympathies but too often withdraw, snail-like, into their own home, forgetful of the energies with which God would endow the heart, for the purpose of enabling it to go forth to triumph over physical and moral evil.

The natural history of the homes of instinctive animals has been written with more interesting minuteness than that of man; the architectural skill displayed by birds and insects, and their habits,—together with those of domesticated animals,—have become a very pleasing part of general knowledge; but we have yet to add to this common stock of intelligence *a faithful record of our fellow-creatures*—not of one class only, nor of a portion of their being—but, of the habits, employments, and homes, the wants, sufferings, joys, and prospects, of every section of society. The value of such facts is evident; many evils that were passively endured for ages have already been proved to lie within the control of reason; and others, before unknown, except by their effects, have been traced to causes, which admit of remedy.

For instance, according to the *Third Report of the Registrar-General*, it is stated, that in the seventeenth century, out of a metropolitan population of 100,000, about 23 persons were killed, and 4·6 murdered; whereas, in the nineteenth century, only 13 were killed, and 0·5 murdered. In other words, the London citizen of to-day has a chance of being murdered nine-fold less than his ancestor of two hundred years ago. This decrease of crime is owing to greater attention being paid to early religious education, and also to certain improvements in the city itself, namely, better thoroughfares, a more perfect illumination by gas, and the institution of a well-organized police.

We deprecate war as the direct enemy of home, but, at the same time, remain ignorant of avoidable causes of a much larger amount of misery than even bloodshed itself ever entailed upon society. The immediate effects of war are, it is true, as nothing, when compared with its remoter evils; by arresting civilization, and interrupting the progress of the peaceful arts, it is doubtless most destructive of human welfare; but the actual sufferings which it brings upon the living generation are of far less weight than many familiar effects of ordinary causes. Dr. Wilson informs us that the mortality in the navy from wounds is inconsiderable compared with that occasioned by disease; and the same remark applies to the military. During the last forty-one months of the Peninsular war, whilst 24,930 privates died natural deaths, only 8899 died of wounds, or were killed in battle. The average deaths in the four battles of Talavera, Salamanca, Vittoria, and Waterloo, were 3·9 per cent. of officers, and 2·11 of privates.

The causes of sailors' deaths have been inquired into with marked success.

So dreadful was once the condition of the navy, that, in the year 1726, when Admiral Hosier sailed with seven ships of the line to the West Indies, he buried his ships' companies twice, and died himself of a broken heart.

Amongst the pictures then presented, as in Anson's Voyages, 1740-44, were those of deaths to the amount of eight or ten a day, in a moderate ship's company; bodies sewn up in hammocks and washing about the decks, for want of strength and spirit on the part of the miserable survivors to cast them overboard. Dr. Johnson, in the year 1778, thus describes a sea-life:—"as to a sailor, when you look down from the quarter-deck to the space below, you see the utmost extremity of human misery; such crowding, such filth, such stench!....A ship is a prison, with the chance of being drowned, it is worse, worse in every respect; worse air, worse food, worse company.—*Sanitary Report*, p. 219.

Now mark the results of a greater variety of food, of purer air and water, and of better clothing, now enjoyed by the Navy. A single ship, the Centurion, within the limits of the South American command, a century ago, lost, in a few weeks, 200 out of 400 men, by one disease, namely, scurvy; but a whole British squadron employed in South America, from the years 1830 to 1836, lost in the six years, by diseases of every description, only 115 out of 17,254 men.

In 1779, the proportion dying annually in the Navy, was 1 in 8 of the employed; in 1811, the proportion dying was 1 in 32 of the employed; from 1830 to 1836, the average number dying, was 1 in 72 of the employed.

The lesson to be learnt from these facts is, that we are not to shift from our own shoulders the responsibility of our neighbour's well-being, either upon Government, or upon society, nor to act upon the false and wicked idea that human suffering *must* exist in some form or other, by a natural necessity. The most flimsy theories for the future, are too often made the scape-goat of present duties that are based upon our personal powers. What these powers are over life, and consequently over the amount of happiness that hangs on life, natural art and science point out. We ventilate our stables because experience has taught the danger of impure air to beasts. But, by reason of their bad construction, crowded as they are with inmates, the dwellings of the labouring poor are not ventilated. Hence the origin of contagious disease, of suffering, and of waste of life, where we should least have looked for it,—even in the rural village and upon extended heaths.

"But the poor," some people will say, "are so careless, there is no help for it, they must take the consequences." Here, however, the consequences themselves soon correct this selfish maxim, for the poor only bear a part of the consequences—sickness; "the main part are taken by others, especially if the sufferers are married, when premature widowhood and orphanage are sustained by the wife and children, who are maintained at the expense of the relations, or of the public.

This inattention to ways and means on the part of the poor, is the result of neglected education; hence it is the duty of every inquirer, not merely to gather facts for the love of knowledge, but to apply them,—at all events in his own home, no matter though it be but a single room,—for the sake of example, and in confirmation of their value.

The minds of those only that are ignorant of the actual nature of man, can rest satisfied with works of fiction; such books have this advantage to the selfish.... they call upon the readers for their tears and sympathies, without troubling them with real objects of compassion; the generous self-sacrifice that sanctifies charity is not called into action. On the other hand, the *Reports* upon the state and condition of various classes of society, issued from time to time under the authority of Government, afford to every reader, at a much cheaper rate than ordinary literature, practical knowledge of our fellow men. The *Report upon the Sanitary Condition of the Labouring Population of Great Britain* carries us into the most hidden haunts of our cities, describing the habits of life, employments,

food, and household manners of the poor; the *Minutes of the Committee of Council on Education* from 1839 to 1842, introduce us to the children of the poor at school; and shew us in action the various methods of instruction that have been found most productive of happiness; the *Report upon the Physical and Moral Condition of Children and Young Persons employed in Mines and Manufactures*, exhibits the various causes of demoralization, which, except we bestir ourselves, are hurrying thousands of children to their own ruin, and their country's danger; lastly come *Reports on the Employment of Women and Children in Agriculture*. It is my present object to detail the main facts contained in these Agricultural Reports.

The employment of female children in field-labour is pretty generally discouraged throughout England, as it unfits them, when undertaken at an early age, for the domestic duties either of a household servant, or of a cottage home. The majority of the women who work on farms are above the age of thirty, and are generally married; they labour in the fields from the time they are grown up till they are sixty or seventy years old. Girls of eleven, twelve, and thirteen years of age may be seen engaged, at times, in the lighter occupations about the farm yard, collecting wood, picking apples, helping in the hay-field, &c.; young women are likewise employed in domestic affairs, in attending to the dairy, poultry, and pigs. These, when called upon to take part in agricultural labour, do so usually in aid of their mother; the same task therefore frequently groups father, wife, and child, in a scene of rural labour neither dangerous nor unbecoming.

The work of the woman is in some respects the same as that of the boy, whom she accompanies and directs, as in turnip-dressing, hoeing corn, &c. The labour commonly assigned to her is suited to her character as having more discretion, greater strength, and pliancy of hand, though with a worse footing on the soil, owing to her dress. She stands between the boy and the old man, whose place she occasionally fills; less expert, but quicker and stronger, than the last; stronger, and more heedful, than the former, but less versatile.

Eight o'clock appears to be the common hour for them to begin their day's work in the fields, and this allows them time to put their cottages into order after the breakfast of the family; they generally leave off work at four in the afternoon in winter, and at six in summer; in the middle of the day one hour is allowed for dinner. The measure of labour does not, however, depend only on the day's length; in the eastern part of Sussex, where the land is well cultivated, and labour in good demand, the working day is two hours shorter than in many other places. A common rule at reaping is not to leave off till you can see a star.

The different kinds of labour performed by women employed on farms depend on local, but not always very evident, causes. A difference is sometimes found in their occupations on two adjoining farms; the women of one village have been accustomed to reap, whilst to those of another neighbourhood the practice is unknown. In some places the woman does not bind the corn, but only makes the bands; in others the binding is generally assigned to her. Turnip-hoeing is by no means an uncommon occupation for women, yet in many villages they never undertake it. About Tunbridge Wells women are rarely employed to "open the hills" in the hop grounds, that is, to open the mounds of earth that cover the roots of the hop, for the purpose of pruning the lower part of the last year's shoots; at Maidstone the woman opens the hills, and the man cuts the shoots. At Farnham, again, it is the woman that cuts the shoots, and the hills are opened by the man.

Hop grounds furnish employment more generally to women and children than corn land, and some kinds of corn land more than others; and here we trace an adaptation of the physical capabilities of the labourer, to the soil on which he works. Bodily strength rather than skill is the capital of the farming labourer. Stiff cold soils are stubborn of cultivation, and require a greater degree of physical strength to bring them into fertility; the mere act of walking over such land is more fatiguing than over a less sticky and more crumbling soil. The holders of the stiff colder soils are, moreover, for the most part, the smaller capitalists, such as would be glad to avail themselves of the cheaper wages of the female labourer; but experience has proved that to be less efficient, and consequently the dearest in the end. Women, therefore, will be found more freely employed upon the looser soil.

On arable and grazing farms women are chiefly engaged in the hay and corn harvests, in hoeing turnips, weeding corn, picking stones, beating manure; in planting, digging, and storing potatoes, transplanting, pulling, and digging turnips, and occasionally in hacking them for cattle. Leading horses at plough still devolves upon the women in some remote parts of Devonshire and Somersetshire.

Weeding the corn is not laborious, but when the plant gets high, the female dress is inconvenient for the work. In processes where both strength and skill have been supplied by machinery, man has been superseded by women and children; she plies at the threshing-machine, and the boy at that for cutting turnips. Hand-work would have required men for both. During the war, women were employed in greater numbers than at present in some districts, but they made way for the men immediately at the peace. Picking apples is confined to the cider counties; within ten miles of Maidstone are many thousand acres of orchard ground, which furnish employment to women in clearing the ground, gathering fruit, and packing apples, &c.

Of these occupations the most laborious are represented by the women who pursue them, to be hay-making, hoeing turnips, reaping, binding the corn, digging potatoes, and picking stones, half a bushel of stones being a heavy load for the female frame. But "not one of the many women, accustomed to work in the fields, with whom I conversed on the subject of their labour, considered it as generally too severe; they spoke of working out of doors, even of the more fatiguing occupations, when they had become accustomed to it, as desirable for their health and spirits.—*Mr. A. Austen's Report.*

As to reaping and binding corn, when a woman is thus employed, it is seldom as a hired servant of the farmer; but her husband being paid by the acre, she works with him, and virtually for him. In some parts, however, she takes the work herself. "Women reap," says a Dorsetshire farmer; "I have employed forty women at a time in reaping." The same witness observes, "Working out of doors is a good thing for women; you may tell them at church on Sunday by their size, and ruddy looks."

Such are the general labours of the field. It remains to visit the dairy and the hop ground: to count the wages, see the sorry fare, indifferent clothing, and to enter the comfortless dwellings, of the labourers. Further, to calculate the effect of these conditions on their health and manners, and to state such means of raising them in the rank of intelligent and moral agents, as may appear to be within our private reach. F.

.....MUCH should we learn of men,
Their manners, their enjoyments, and pursuits,
Their passions, and their feelings; chiefly those
Essential and eternal in the heart,
That, 'mid the simpler forms of rural life,
Exist more simple in their elements,
And speak a plainer language.—WORDSWORTH.

JOHN W. PARKER, PUBLISHER, WEST STRAND, LONDON.